



Conceptual Graphs and Datatypes

Submitted by Emmanuel Lemoine on Mon, 10/06/2014 - 18:26

Titre	Conceptual Graphs and Datatypes
Type de publication	Communication
Type	Communication avec actes dans un congrès
Année	2009
Langue	Anglais
Date du colloque	2009
Titre du colloque	17th International Conference on Conceptual Structures, ICCS 2009
Titre des actes ou de la revue	Conceptual Structures: Leveraging Semantic Technologies
Volume	5662
Pagination	270 - 283
Auteur	Raimbault, Thomas [1], Genest, David [2], Loiseau, Stéphane [3]
Pays	Russie, Fédération de
Editeur	Springer
Ville	Moscou
ISBN	978-3-642-03078-9 / 978-3-642-03079-6
Mots-clés	algorithm analysis and problem complexity [4], Artificial Intelligence (incl. Robotics) [5], Discrete Mathematics in Computer Science [6], Information Systems Applications (incl.Internet) [7], Mathematical Logic and Formal Languages [8]
Résumé en anglais	Datatypes, like numbers or strings, are widely used in Knowledge Representation (e.g. in RDF(S)/OWL or UML languages). The usual model of simple conceptual graphs does not support datatypes. Some extensions of conceptual graphs have been proposed for using datatypes, however these extensions often wander from initial model of conceptual graphs by introducing for instance procedural relations between nodes. This paper proposes a datatype extension for the simple conceptual graph model. Our contribution is threefold. First, we allow the use of datatypes for typing concept nodes. Second, we define two families of conceptual graphs: factual graphs and query graphs, both close to initial model. Factual graph is used to represent factual knowledge, including values of datatypes. Query graph may contain concept nodes that represent conditional queries on values of datatypes; these conditions are expressed by regular operators on datatypes. Third, we adapt projection to operate from a query graph to a factual graph.
Notes	Date du colloque : 07/2009
URL de la notice	http://okina.univ-angers.fr/publications/ua4500 [9]
DOI	10.1007/978-3-642-03079-6_21 [10]
Lien vers le document en ligne	http://dx.doi.org/10.1007/978-3-642-03079-6_21 [10]

Liens

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Publié sur *Okina* (<http://okina.univ-angers.fr>)